

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Chen *et al.*

Examiner: Whitmore, Stacy

Serial No.: 10/711,418

Art Unit: 2825

Filed: 9/17/2004

For: **NON-DESTRUCTIVE EVALUATION OF MICROSTRUCTURE AND
INTERFACE ROUGHNESS OF ELECTRICALLY CONDUCTIVE LINES IN
SEMICONDUCTOR INTEGRATED CIRCUITS IN DEEP SUB-MICRON
REGIME**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

SPECIES ELECTION REQUIREMENT

In response to the species election requirement dated August 2, 2006, Applicants hereby provisionally elect Species I, claims 1-6, drawn to a method of determining grain size. Claims 1-6 read on the elected species. None of claims 1-6 is a generic claim.

This election of Species I is made with traverse, and Applicants hereby reserve the right to file a divisional application in connection with unelected Species II (claims 7-13), drawn towards a method of line evaluation by determining a line geometry adjustment; and Species III (claims 14-20), drawn to a line evaluation for determining line geometry adjustments based on a

temperature coefficient of resistance.

With regard to the species election requirement, Applicants respectfully contend that the species restriction is improper and should be withdrawn, because the claims of Species I, Species II, and Species III are **not mutually exclusive**. See MPEP § 806.04(f) which asserts: “Claims to be restricted to different species must be mutually exclusive”.

More specifically, the “electrically conducting line” of claim 1 (species I) used for determining **an average grain size** of the electrically conducting line can also be used as one of the “N electrically conducting lines” of claim 7 (Species II) used for determining **a line geometry adjustment**. In other words, there is nothing mutually exclusive between Species I, claims 1-6 and Species II, claims 7-13.

Furthermore, the “electrically conducting line” of claim 1 (species I) used for determining **an average grain size** of the electrically conducting line can also be used as one of the “N electrically conducting lines” of claim 14 (Species III) used for determining **line geometry adjustments** for the N electrically conducting lines. In other words, there is nothing mutually exclusive between Species I, claims 1-6 and Species III, claims 14-20.

In addition, the “N electrically conducting lines” of claim 7 (Species II) used for determining **a line geometry adjustment** can also be used as the “N electrically conducting lines” of claim 14 (Species III) used for determining **line geometry adjustments** for the N electrically conducting lines. In other words, there is nothing mutually exclusive between Species II, claims 7-13 and Species III, claims 14-20.

Moreover, the species restriction is improper and should be withdrawn, because a search and the examination of the entire application could be made without serious burden. See MPEP §

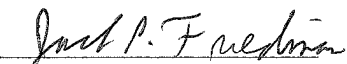
803, in which it is stated that “if the search and examination of the entire application can be made without serious burden, the Examiner must examine it on the merits” (emphasis added).

Applicants respectfully submit that this policy should apply in the present application in order to avoid unnecessary delay and expense to Applicants and duplicative examination by the Patent Office.

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account No. 09-0456.

Date: 08/21/2006


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